EXHIBIT NO. DX-2 evid.
CAUSE NO. 3:22cv734-DPJ-HSO-LHS
WITNESS
CLERK: SHONE POWELL

FEB 26 2024

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI
Candice Clark, REPORTER

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
NORTHERN DIVISION

MISSISSIPPI STATE CONFERENCE OF THE NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE; DR. ANDREA WESLEY; DR. JOSEPH WESLEY; ROBERT EVANS; GARY FREDERICKS; PAMELA HAMNER; BARBARA FINN; OTHO BARNES; SHIRLINDA ROBERTSON; SANDRA SMITH; DEBORAH HULITT; RODESTA TUMBLIN; DR. KIA JONES; ANGELA GRAYSON; MARCELEAN ARRINGTON; VICTORIA ROBERTSON,

Plaintiffs,

vs.

STATE BOARD OF ELECTION COMMISSIONERS; TATE REEVES, *in his official capacity as Governor of Mississippi*; LYNN FITCH, *in her official capacity as Attorney General of Mississippi*; MICHAEL WATSON, *in his official capacity as Secretary of State of Mississippi,*

Defendants,

AND

MISSISSIPPI REPUBLICAN EXECUTIVE COMMITTEE,

Intervenor-Defendant.

Case No. 3:22-cv-734-DJP-HSL-LHS-FKB

SUPPLEMENTAL EXPERT REPORT OF THOMAS L. BRUNELL, Ph.D.

October 23, 2023

EXHIBIT
DX-2

EXHIBIT 3A
WIT:
DATE:
Brooks Court Reporting

Supplemental Report of Thomas L. Brunell, Ph.D.

Professor Orey's report attempts to address, among other things, the issue of racial disparity in electoral turnout in Mississippi. I have several critiques about his approach on this subject. I am being paid $500 per hour for my work in this matter. My fees are not contingent on my opinions or on the outcome of the case. My CV is attached to my initial expert report, dated October 16, 2023.

I. Prof. Orey Only Uses 2020 Election

The first problem is that Prof. Orey only examines turnout in the 2020 election. He analyzes the 2020 election with different datasets and with different methods, but ultimately, he is still just examining a single election to describe a complex phenomenon that has changed over time. There are many factors that affect election turnout in America including: which offices are up for election, methods of voting, whether an incumbent is present, what other items are being voted on (like an initiative or constitutional amendment perhaps), the weather, and campaign finance, among other things. Establishing a racial disparity for voter turnout based on a single election is troublesome.

II. CES data

One of the datasets that Prof. Orey uses in his report is the Cooperative Election Study (CES) for the 2020 election. On page 25 of his report, Prof. Orey presents the data in tabular form (Table 16) replicated here:

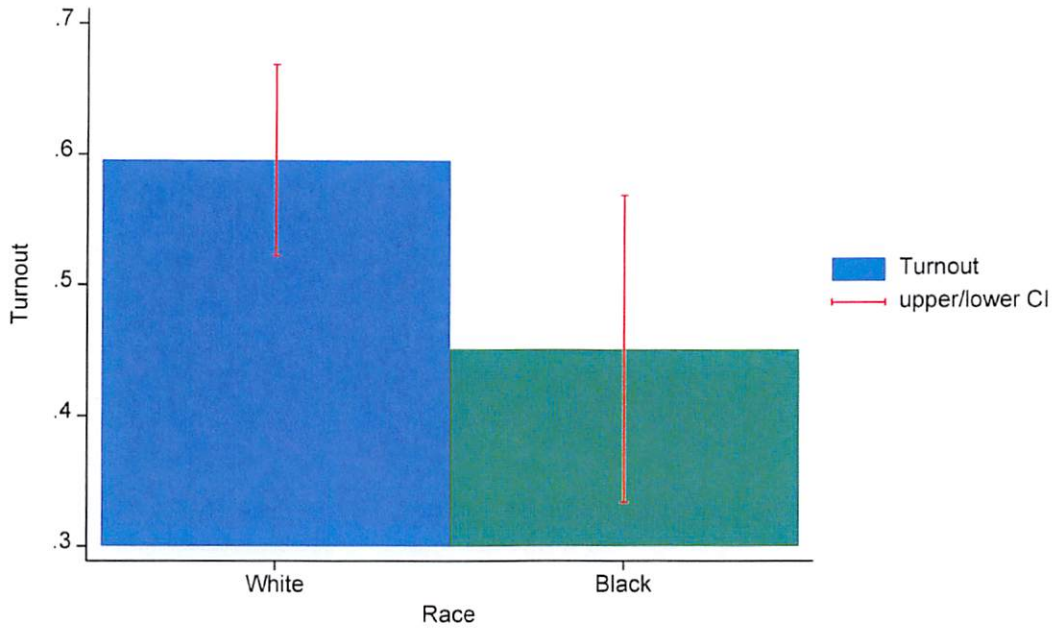
	Turnout	N
Black	53.2%	158
White	64.7%	283

I downloaded the dataset cited in Prof. Orey's report and found that there are 160 observations of Black respondents in Mississippi. There are two missing observations in his dataset. More problematic however is the fact that Prof. Orey does not weight his analysis with the supplied weights in the CES. Surveys are often weighted because of issues with sampling. The easiest way to understand the reason we use weights is that certain subpopulations may be under or over-sampled in the data. Thus, if we know African Americans make up 38 percent of the population in Mississippi, but they only make-up 25 percent of the sample in the CES, then we must give those observations a higher weight. The CES has a complex weighting strategy that is detailed in the codebook for each survey. In short, the CES uses data from the Census Bureau, based on the American Community Survey (ACS), as a baseline for generating different strata. These strata are based on gender, age, race, Hispanic origin, and education (pages 14-16 in the "Guide to the 2020 Cooperative Election Study").

Prof. Orey simply took the total number of Blacks in the raw data and reported the percent that turned out in the 2020 election (and the same thing for White voters). This approach does not utilize the weights provided by the survey nor does it allow Prof. Orey to generate confidence intervals. I performed this analysis using the appropriate weights, thereby allowing me to report confidence intervals, which is appropriate since we are extrapolating to the whole population of Mississippi from a survey.

	Turnout	95% C.I.	N
White	59.57%	52.08, 66.64	283
Black	45.15%	33.86, 56.96	160

Statistical analyses allow us to quantify uncertainty. We are talking about the entire population of the state of Mississippi here based on a survey of less than 500 people. From this sample we can estimate the population parameters, but we do so with uncertainty. Confidence intervals are the indicators of this inherent uncertainty. We can be reasonably sure, though not completely certain, that the true turnout percentages for Blacks and Whites in Mississippi lie with the confidence intervals that I have estimated. These intervals are centered around our point estimates, but we do not just look at the point estimates and accept them as the truth. Rather we examine the 95 percent confidence intervals. The results indicate that, in the 2020 general election, the point estimates for White turnout are higher than that for Blacks in Mississippi. However, the 95 percent confidence intervals are sufficiently large that the intervals for Whites and Blacks overlap. That is, the lower interval for Whites is less than the higher interval for Blacks. This means that, from a statistical standpoint, we cannot be confident that the rate of turnout among Blacks and Whites in Mississippi in 2020 was different. The fact that the confidence intervals overlap is the key point here. I have graphed the data from the table above here to be able to visualize this overlap:



The red vertical lines are the confidence intervals. The bottom interval for the White estimate is lower than the top interval for Blacks – this is the overlap. This overlap illustrates that when the proper weighting is applied to generate the appropriate confidence interval, this analysis of the CES data for a single election in 2020 does not demonstrate a statistically significant difference between Black and White voter turnout for that election. We cannot be certain that the turnout rates among these two groups is different.

III. BISG Turnout Analysis

In this section of his report, Prof. Orey used a voter file from Mississippi matched with census data to first estimate probabilities of race/ethnicity for individuals, and second check to see whether those people voted or not. He directly

estimates turnout for Whites and Blacks, but, like in the CES analysis, there are no standard errors, so we cannot be confident the differences are statistically significant.

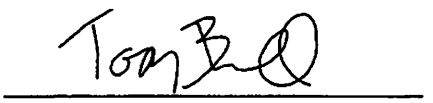
The Mississippi Secretary of State reports in the amended official results that 1,313,759 ballots were cast in the 2020 presidential election.[1] There are 930,641 observations (registrants) in Prof. Orey's BISG data file that was provided by counsel. Of those 930,641 records, there are only 599,881 observations in which the person voted in the 2020 election. Subtracting 599,811 from 1,313,759 we get 713,878 missing voters for the 2020 election. There are also missing non-voters from the dataset, though we cannot tell how many. Prof. Orey is missing records for over half the voters in the 2020 election (713,878/1,313,759 = 54.34 percent are missing). It is not clear from Prof. Orey's report why there are so many missing records, though one problem is that the voter file that Prof. Orey used was from June 2022 (page 24 of the Orey report). This is nearly two years after the election – there are new registrants in the state, and other people who voted in 2020 and who have since died or moved out of state. Relatedly, if a voter lived in one part of Mississippi and voted in 2020, then moved shortly thereafter to a different part of the state, this would affect the probability estimate of their race/ethnicity since that process uses demographic information of the resident's census block in the estimation process. Drawing conclusions based on partial and dated data for a single election renders Prof. Orey's conclusions unreliable.

[1] https://www.sos.ms.gov/elections-voting/election-results/2020-election-results/2020-general-election. Accessed on October 19, 2023.

IV. Conclusion

Prof. Orey's analysis of turnout differentials based on race has some serious problems. First, he only relies on a single election for his analysis – the 2020 election. Turnout varies over time due to time and election specific factors, and there are also long-term trends. These factors cannot be captured with a single data point in time. Second, his CES analysis does not use appropriate survey weights and does not produce confidence intervals. When appropriate survey weights are used and confidence intervals are considered, there is no statistically significant difference in turnout rates between Whites and Blacks in Mississippi. Third, his BISG analysis uses a dataset that is missing data for about half the registrants/voters in the state. All of these deficiencies undermine the reliability of Prof. Orey's conclusions.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge. I reserve the right to amend or supplement my report if additional facts, testimony, or materials come to light.



October 23, 2023

Thomas L. Brunell